

# THE BRITISH INSULATED WIRE Co.,

LIMITED.



# Electrical



# Cable Makers and

# Engineers.



WORKS

HEAD OFFICE AND PRESCOT, LANCS. ENGLAND.

LONDON OFFICE 11, CHARING CROSS ROAD.

TELEGRAMS

"INSULATOR, PRESCOT."

"AIRLIKE, LONDON."

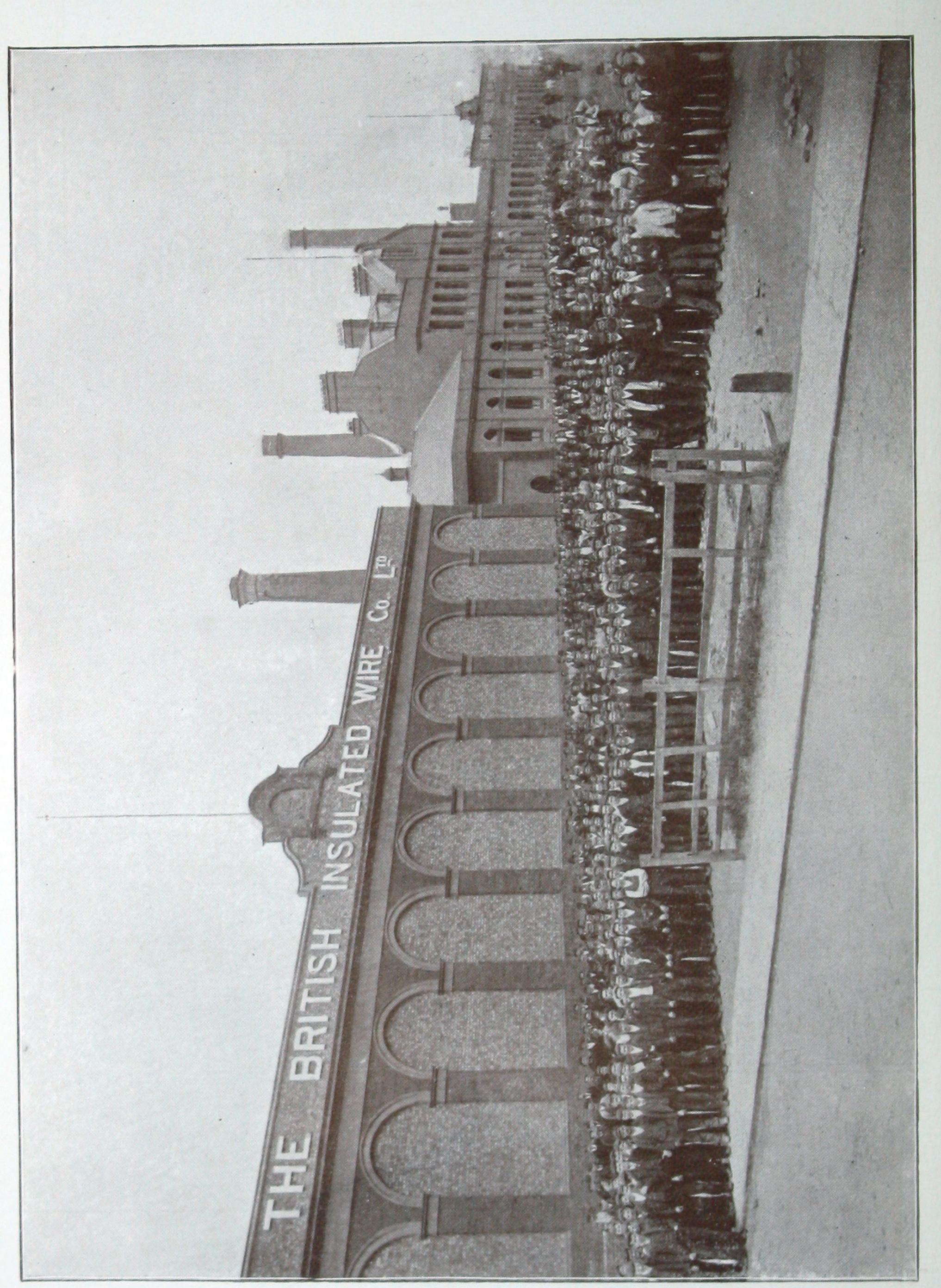
TELEPHONES ...

PRESCOT-No. 8. LONDON -2995, GERRARD.

## GLASGOW EXHIBITION.

Stands No. 406 and 407.

ALL THE MAIN CABLES ARE OF OUR MANUFACTURE.



AY-SHIFT EMPLOYEES MASSED AT FRONT OF WORKS

# Agents and Representatives.

#### SCOTLAND:

MORRIS, WARDEN & Co., B. DEAKIN,

GLASGOW.

#### SOUTH AFRICA:

H. C. NEWTON, J. W. GELLING,

CAPE TOWN.

#### ARGENTINE:

AGAR, CROSS & Co., H. MARRINER BRIGG, 124, CALLE DEFENSA 136, GRAND HOTEL, BUENOS AYRES.

#### AUSTRALIA:

25, GORDON STREET, 63, QUEEN STREET, MELBOURNE.

#### MEXICO:

P.O. Box No. 303, 593, APARTADO, MEXICO, D.F.

#### INDIA:

CALCUTTA.

## For House Wire & Accessories.

A. F. SERGEANT, 51, LINCOLN INN, BIRMINGHAM. W SEVENOAKES, 13, BROWNLOW STREET, HOLBORN, W.C.

S. HARTFORD, CHAPEL STREET, SALFORD.

#### NOTES.

WIRE COMPANY, LTD., was founded in 1891 with a capital of £60,000, for the manufacture of Paper Insulated Underground Cables of all classes. Work was commenced early in the following year, the first order of importance obtained by the Company being for the supply of the whole of the High and Low Tension Cables for the City of London Electric Lighting Company, Ltd., still the largest of the Electric Supply undertakings in this country.

The reliability and permanence of these cables was soon recognised, and the field of the Company's operations increased by orders for new undertakings and for the replacement of cables made by other and earlier manufacturers.

The capital of the Company has been, step by step, increased until now it stands at £1,000,000, with £250,000 of debentures.

The Company's Factory at Prescot has grown from small beginnings until it now covers a total of 15 acres, and comprises not only the most extensive Electric Cable Factory in this country (and perhaps in the world), but also a separate department for the rolling and drawing of the necessary copper wire, and the making and machining of joint boxes, section pillars, etc.

The Employees now number over 2,500, and the Expert and Commercial Staff over 200.

Two new shops, each over 300 ft. × 76 ft. span, are now in process of erection, to provide for the necessary machinery to meet the increase in the cable and accessories business: this, in spite of the fact that only last year extensive additions were completed.

Preparations are also being made to provide for the increase of the copper rolling and wire drawing plants, so as to bring the output in these departments up to 240 tons of finished wire per week.

THE BRITISH INSULATED WIRE COMPANY has a record of continuous progress, and during the period of its existence has introduced many improvements in the art of cable making.

The Company were the first makers of paper insulated cables in this country. The first to manufacture concentric and triple concentric cables on a commercial scale. The first to provide a complete system of junction boxes for underground mains. They introduced the system of twin lead covered house wire cables, now so largely adopted. They were the first manufacturers of low capacity air space telephone cables. The first to use earthenware troughs for laying cables underground on the solid system, and are the only users of segmental strips for the outer of concentric cables.

It may fairly be said, without any exaggeration, that there are few of the modern improvements in cable manufacture and handling that have not originated at Prescot.

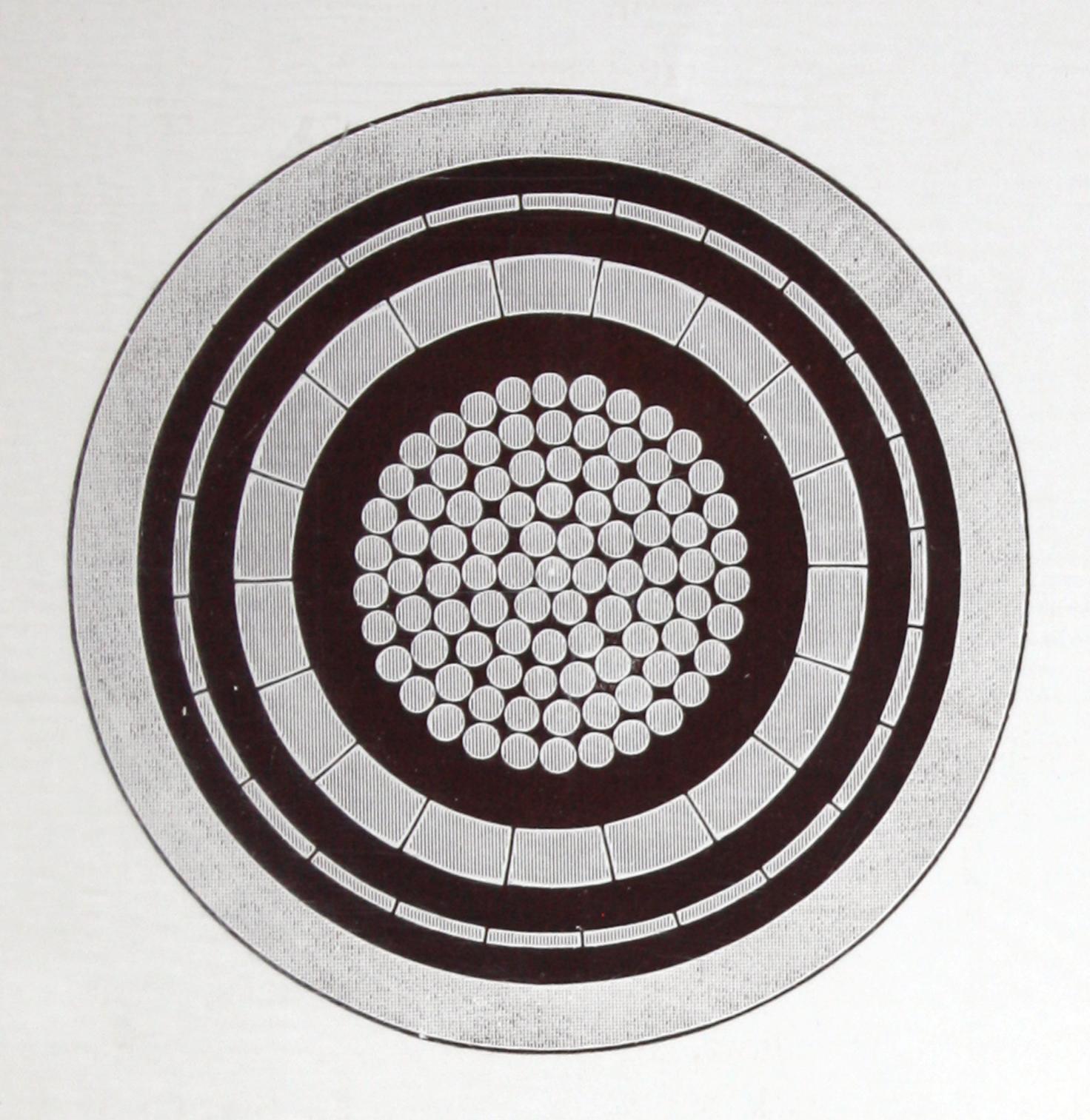
Many of the improvements mentioned above, and others for detailed processes, have been protected by Patents. The Company now hold some 50 Patents connected with the art of cable making.

Other improvements remain, for purposes of policy easily understood, as secret processes.

A few of the Company's specialities in cables are shewn on the pages following. They have many other standard types of cables, and over 300 designs of joint boxes and fittings for underground work.

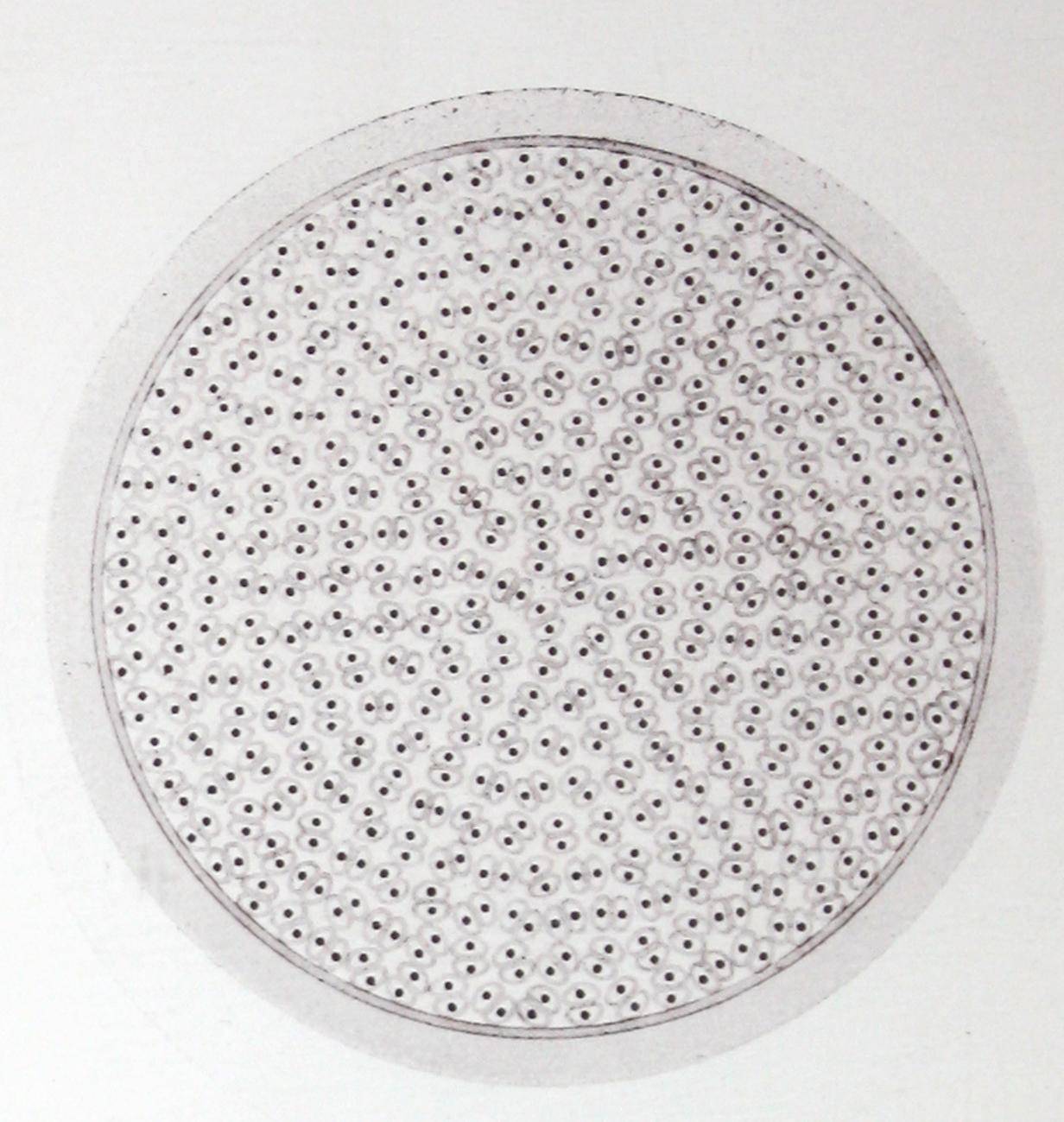
The British Insulated Wire Company are prepared to undertake the making and laying complete of cables, on any system, for electric light, tramways, telephones, and transmission of power. The building of sub-stations, the erection of overhead or underground tramway gear, the laying of tramway tracks, cable conduits, and, in short, to undertake and guarantee the whole of the work outside the Lighting Station, Powerhouse, or Telephone Exchange.





#### TRIPLE CONCENTRIC CABLE.

Conductors I sq. inch × I sq. inch × 3 sq. inch section, paper insulated, and lead covered, for a working pressure of 440 volts. Tested at the Factory to 2,500 volts alternating, and short samples, to a break-down pressure of 30,000 volts alternating. Similar cables have been supplied to Glasgow, Charing Cross and Strand Co., Bendigo, Bolton, Hackney, St. Helens, Leith, Kensington, and others.



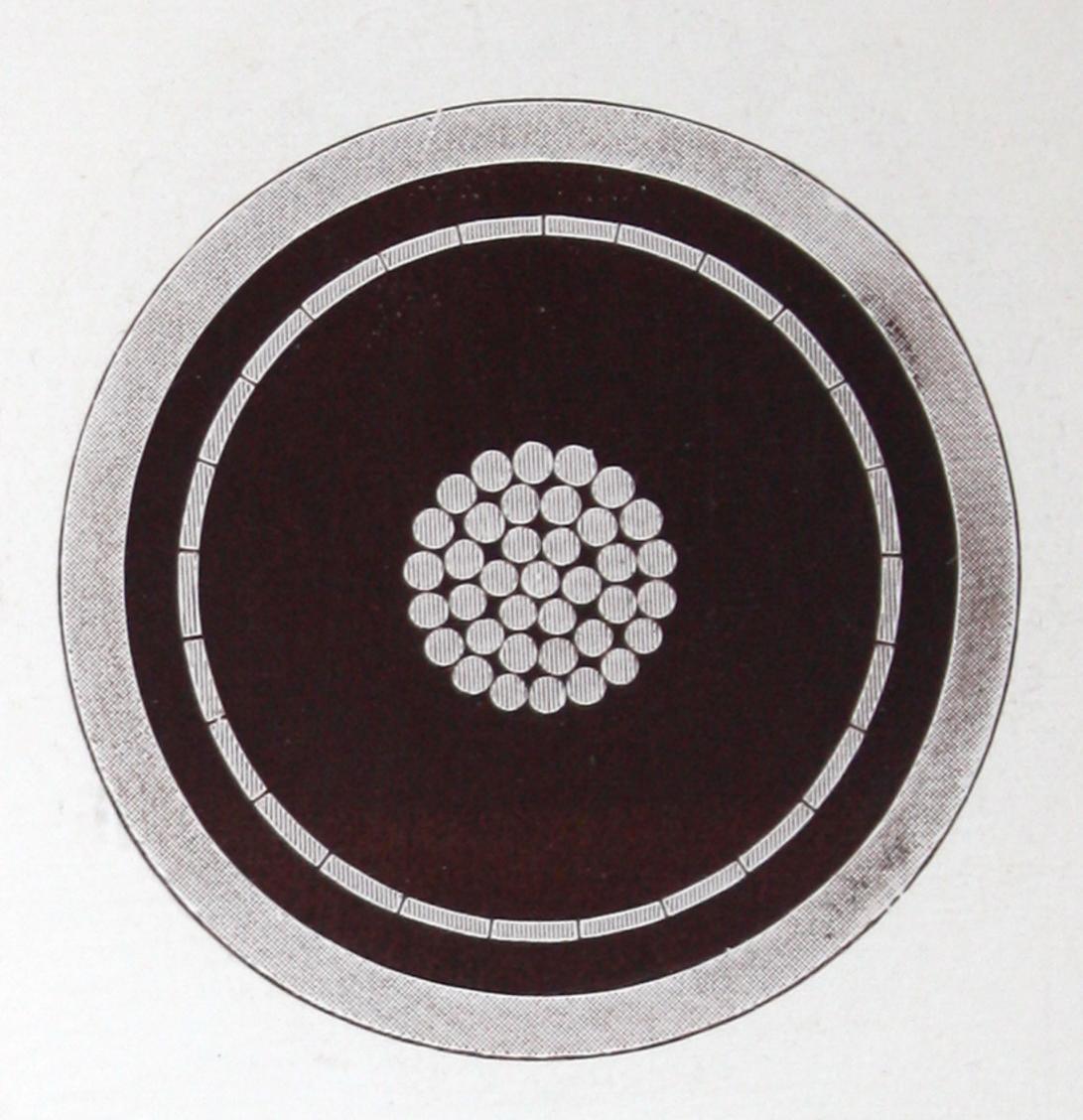
# 312 PAIR AIR SPACE TELEPHONE CABLE.

Conductors 1/22 S. W. G. Capacity below '07 microfarads per mile. Insulation resistance 10,000 megohms per mile. Similar cables have been supplied to H.M. Government, G.P.O. Queensland Government, Cape of Good Hope Government, States of Guernsey, National Telephone Co., Ltd., L. & N. W. Railway Co., L. & Y. Railway Co., Midland Railway Co., Yokohama, Glasgow Corporation, Leeds Corporation, Southport Corporation.



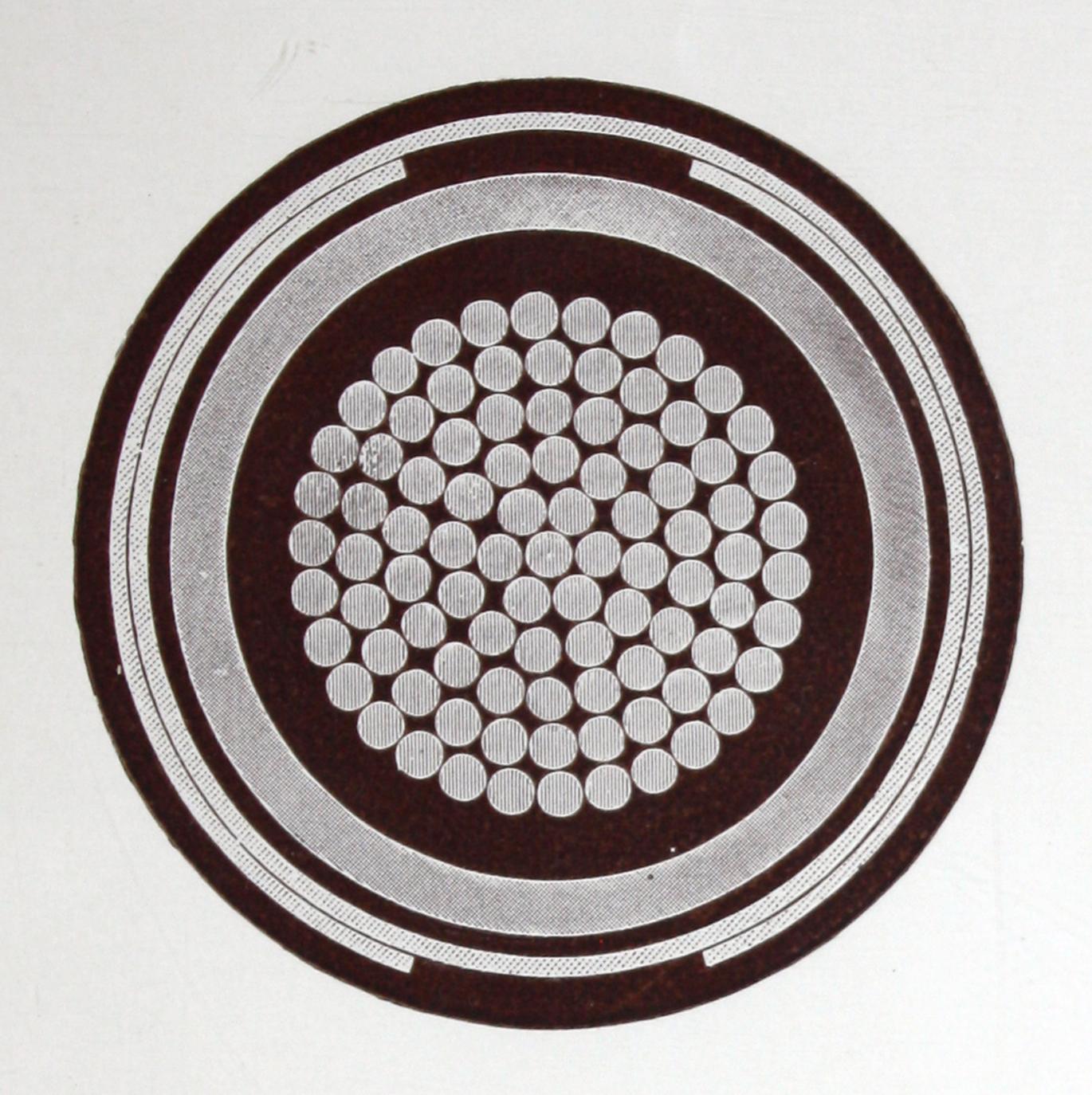
# PATENT 3-CORE CABLE FOR TRI-PHASE WORKING.

Conductors '15 sq. inch section, paper insulated and lead covered, for a working pressure of 5,000 volts. Tested at the Factory to 20,000 volts alternating, and short samples, to a break-down pressure of 40,000 volts alternating. Similar cables have been supplied to Manchester, Notting Hill, Kensington, Sydney, Newcastle, Dublin, Halifax and others.



### HIGH TENSION CONCENTRIC CABLE.

Conductors '25 sq. inch × '25 sq. inch section, paper insulated and lead covered, for a working pressure of 11,000 volts. Tested at the Factory to 20,000 volts alternating, and short samples, to a break-down pressure of 92,000 volts alternating. Similar cables have been supplied to The London Electric Supply Corporation, Ltd., and to The Metropolitan Electric Supply Co., Ltd.



## ARMOURED SINGLE CABLE.

Conductor 1.5 sq. inch section, paper insulated and lead covered, for a working pressure of 500 volts. Tested at the Factory to 2,500 volts alternating, and short samples, to a break-down pressure of 30,000 volts alternating. Similar cables have been supplied to Bradford, Aberdeen, Notting Hill, Kensington, St. Helens, Newcastle, Bolton, Calcutta, Melbourne, Bootle, St. Pancras and others.



# PATENT TWO-PHASE CABLE WITH COMMON RETURN.

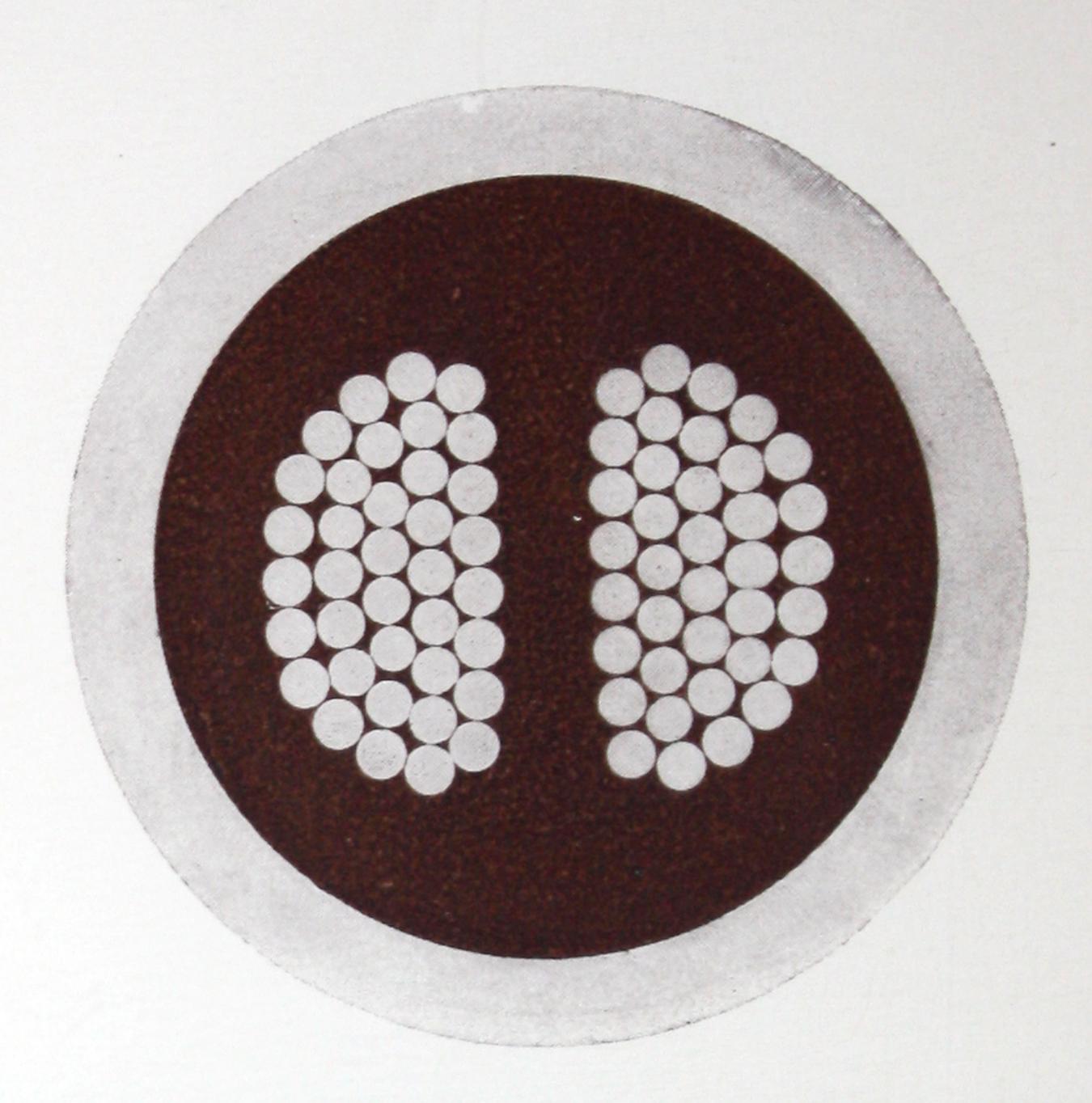
Conductors '4 sq. inch × '14 sq. inch × '2 sq. inch section, paper insulated and lead covered, for a working pressure of 7,500 volts between the inner conductors and between outer and inner. Tested at the Factory to a pressure of 20,000 volts alternating, and short samples, to a break-down pressure of 50,000 volts alternating. Similar cables have been supplied to the Midland Electric Corporation for Power Distribution, Ltd., and Leeds Corporation.

The B. I. W. Co., Ltd.



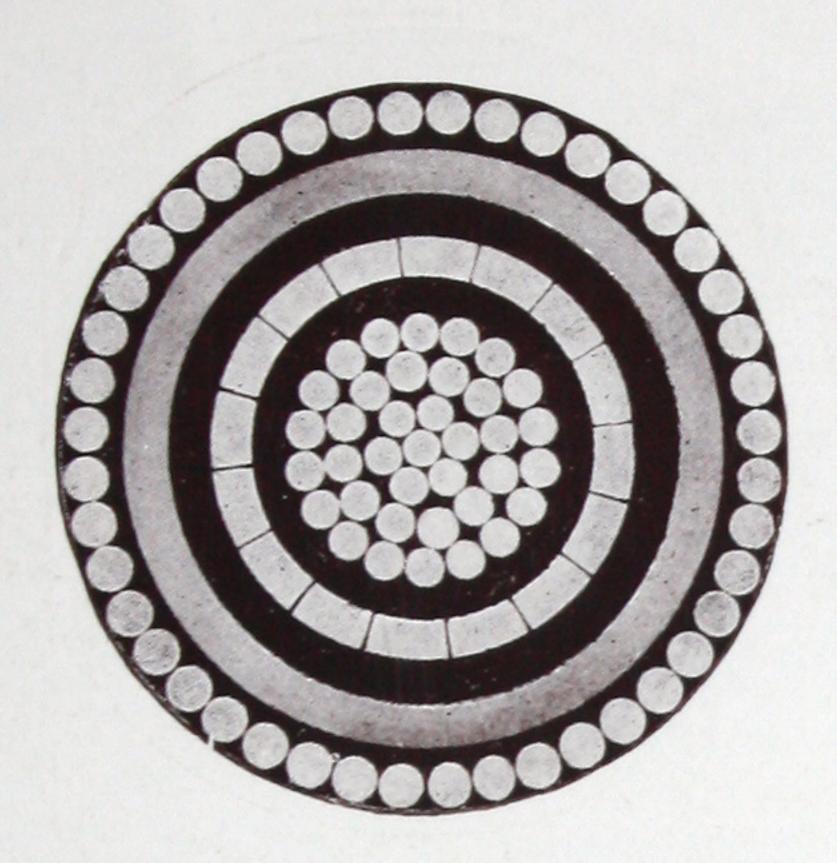
#### PATENT SIX-CORE CABLE.

Conductors '5 sq. inch × '5 sq. inch × '2 sq. inch, and three pilots '0043 sq. inch section, paper insulated and lead covered, for a working pressure of 440 volts. Tested at the Factory to 2,500 volts alternating, and short samples, to a break-down pressure of 30,000 volts alternating. Supplied to the Poplar Borough Council.



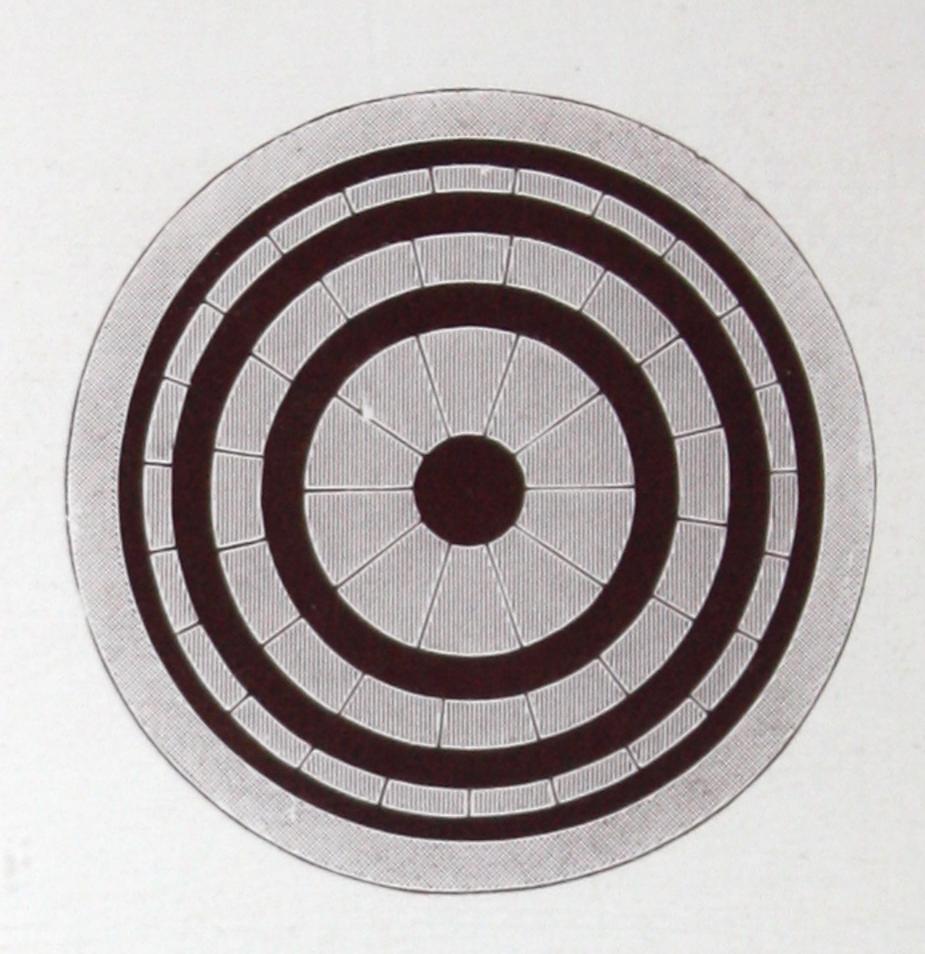
### PATENT TWIN CABLE.

Hammered conductors, paper insulated and lead covered, for a working pressure of 2,000 to 3,000 volts. Tested at the Factory to 12,000 volts alternating, and short samples, to a break-down pressure of 30,000 volts alternating. Similar cables have been supplied to Brompton, Blackpool, Shoreditch, Cardiff, City of London, Hanley, Southport, Portsmouth, South Shields.



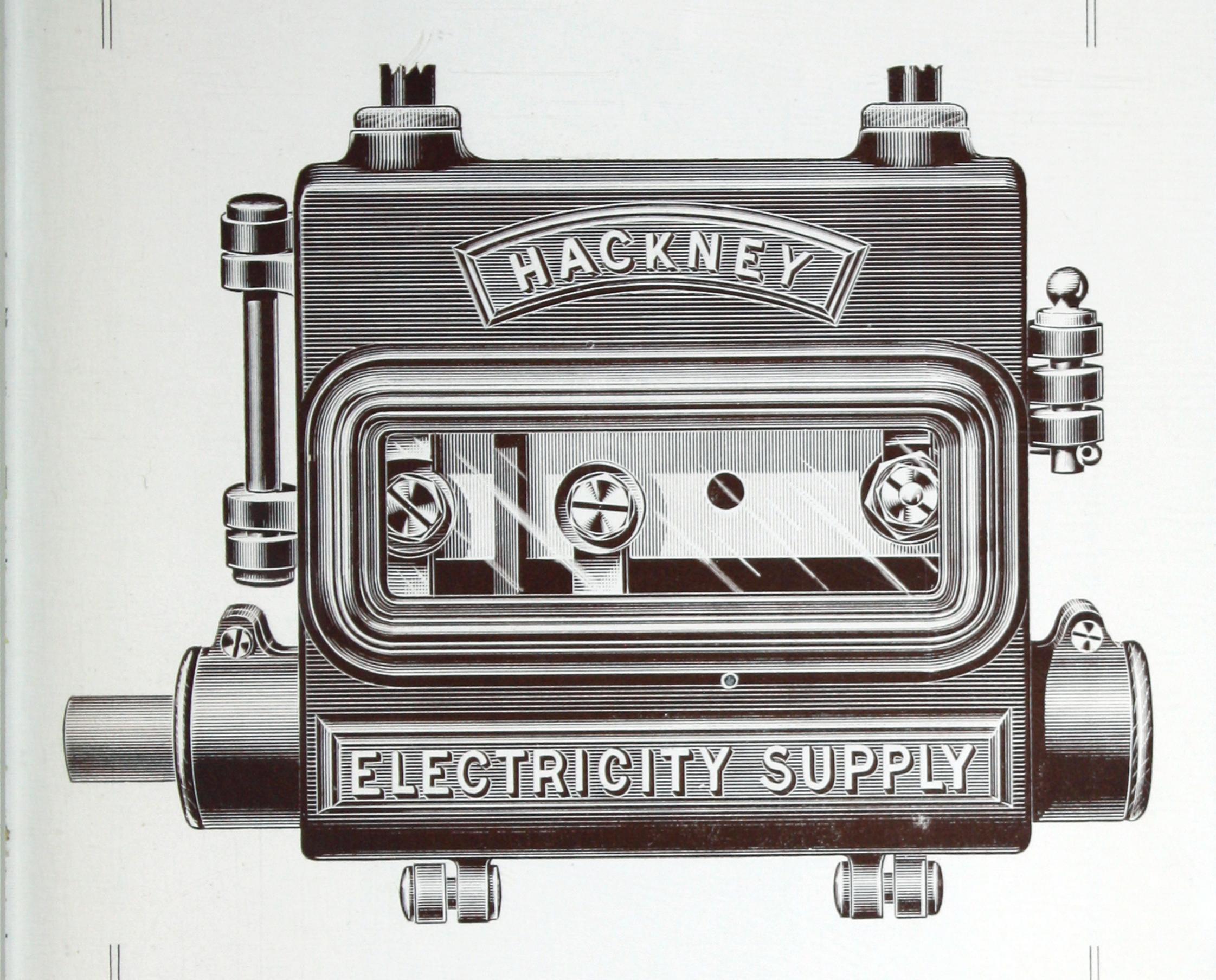
#### ARMOURED CONCENTRIC CABLE.

Conductors '2 sq. inch × '2 sq. inch section, paper insulated and lead covered, for a working pressure of 220 volts. Tested at the Factory to a pressure of 2,500 volts alternating, and short samples, to a break-down pressure of 20,000 volts alternating. Similar cables have been supplied to Ashton-under-Lyne, Altrincham, Bray, Brompton, Bangor, Blackpool, City of London, Derby, Edinburgh, Eastbourne, Fulham, Farnworth, Glasgow, Hanley, Kensington, Leeds, Norwich, Plymouth, Sunderland, St. Helens, Torquay.



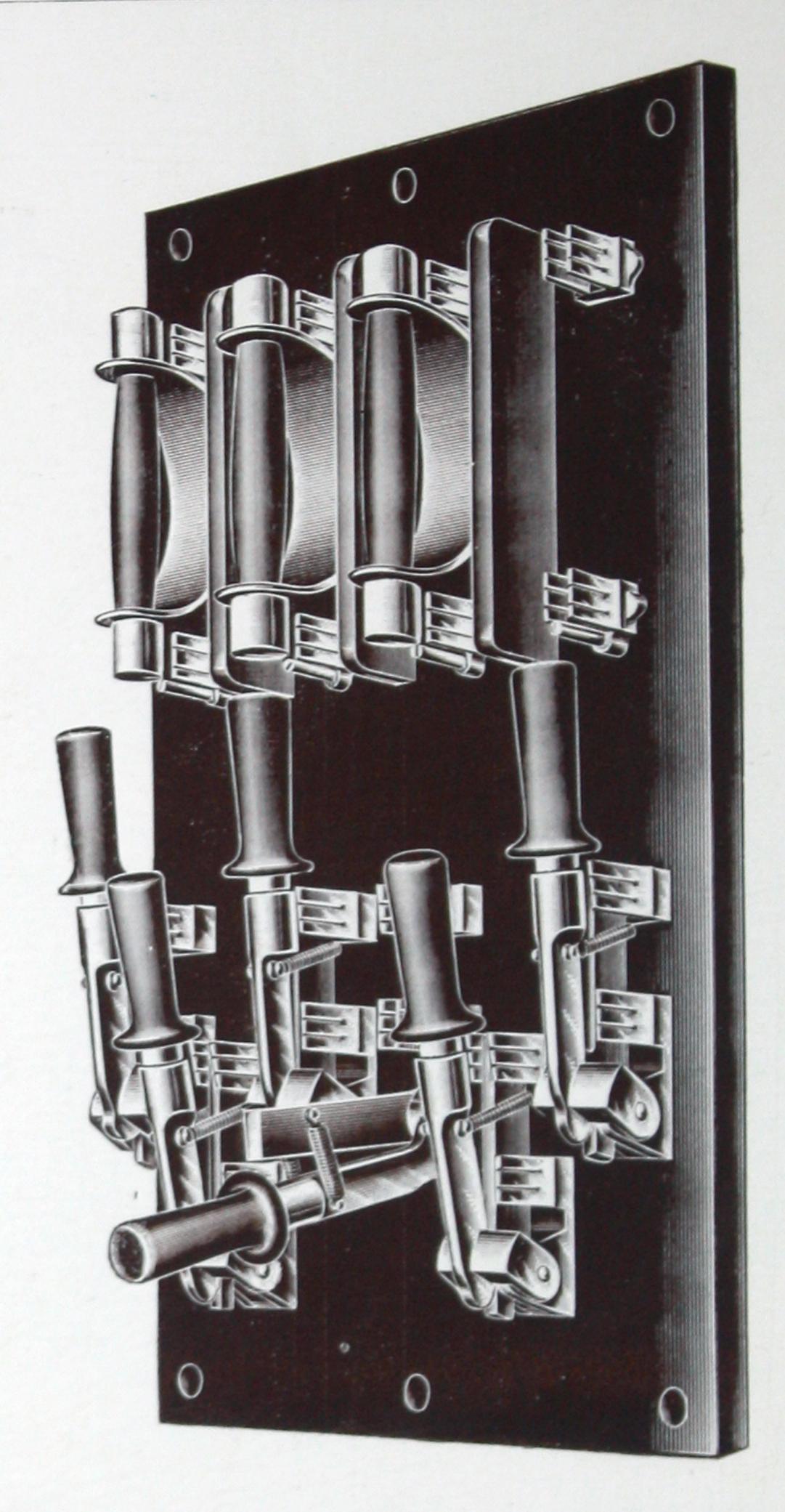
#### TRIPLE CONCENTRIC CABLE.

Conductors '4 sq. inch × '4 sq. inch × '15 sq. inch section, paper insulated and lead covered for a working pressure of 440 volts. Tested at the Factory to a pressure of 2,500 volts alternating, and short samples to a break-down pressure of 20,000 volts alternating. Similar cables have been supplied to Beckenham, Bolton, Chesterfield, City of London, Grimsby, Glasgow, Hackney, Leeds, Leith, Middlesbrough, Metropolitan, Co., Ltd., Partick, Rathmines, West Bromwich and others.



#### HOUSE CUT-OUT BOX.

This box is so arranged that the main cable can enter into a separate sealing compartment from the right or left hand. The covers are hinged and interlocking, and the box is provided with a sealing device. In six months the sales of this box exceeded 3,000.



#### STANDARD TYPE OF SECTION PANEL.

PILLARS FITTED WITH SIMILAR PANELS HAVE BEEN SUPPLIED TO

ABERDEEN

BIRKENHEAD

BLACKPOOL AND FLEETWOOD

BLACKPOOL

BENDIGO

CAMPS BAY

CLEETHORPES

CALCUTTA

DARWEN

GRIMSBY

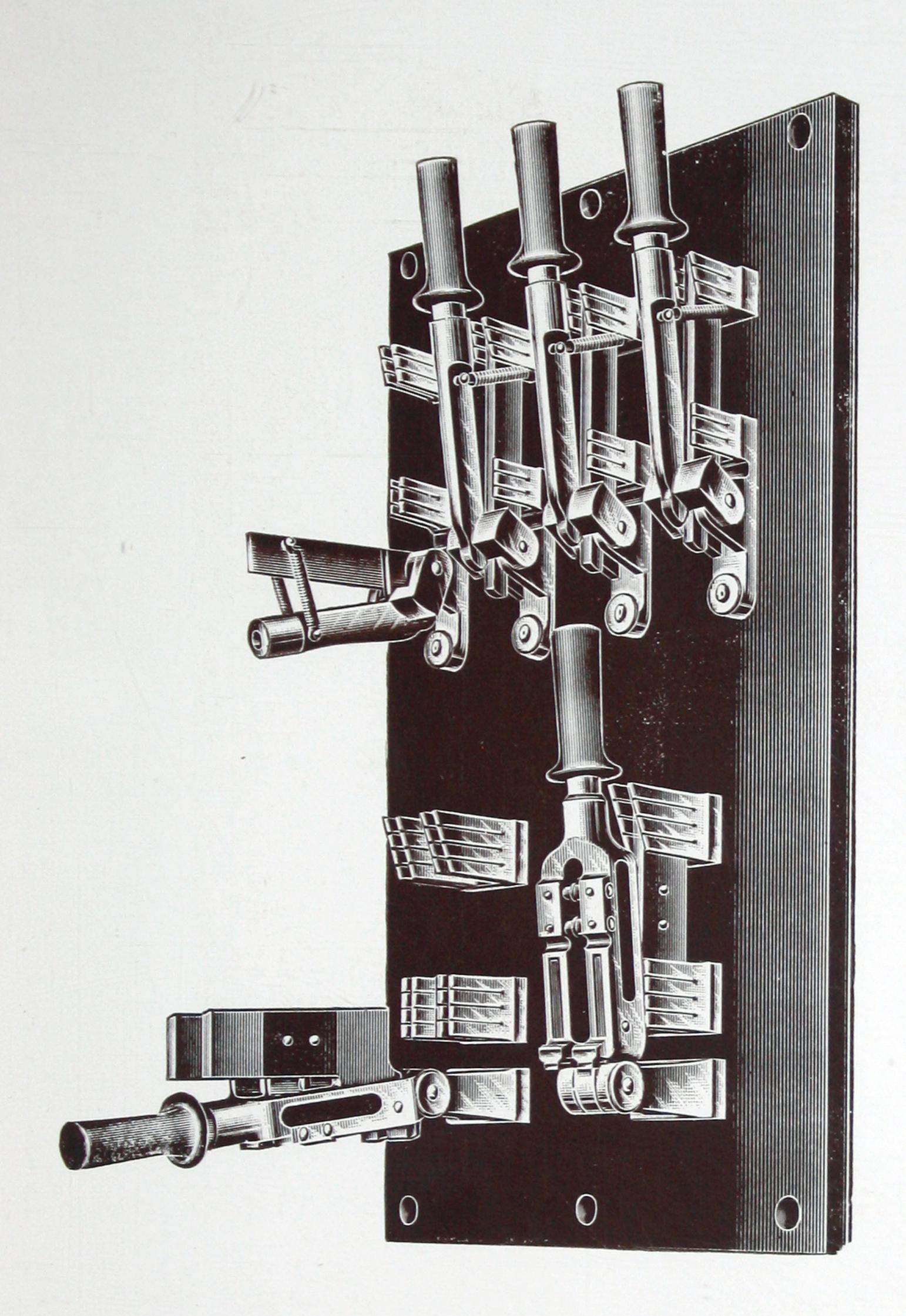
PORTSMOUTH

PRESCOT TO LIVERPOOL

ST. HELENS

STOCKPORT

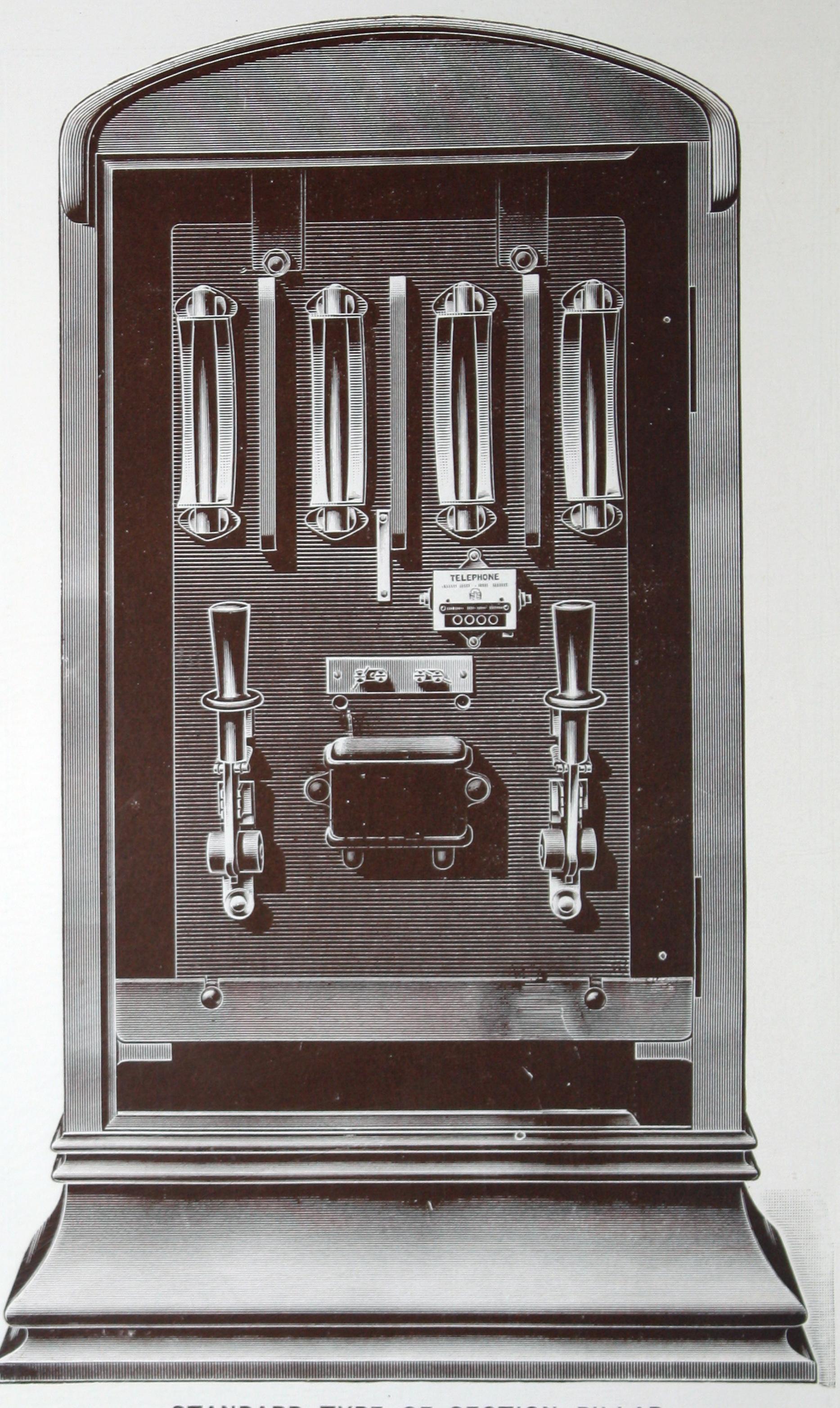
VICTORIA



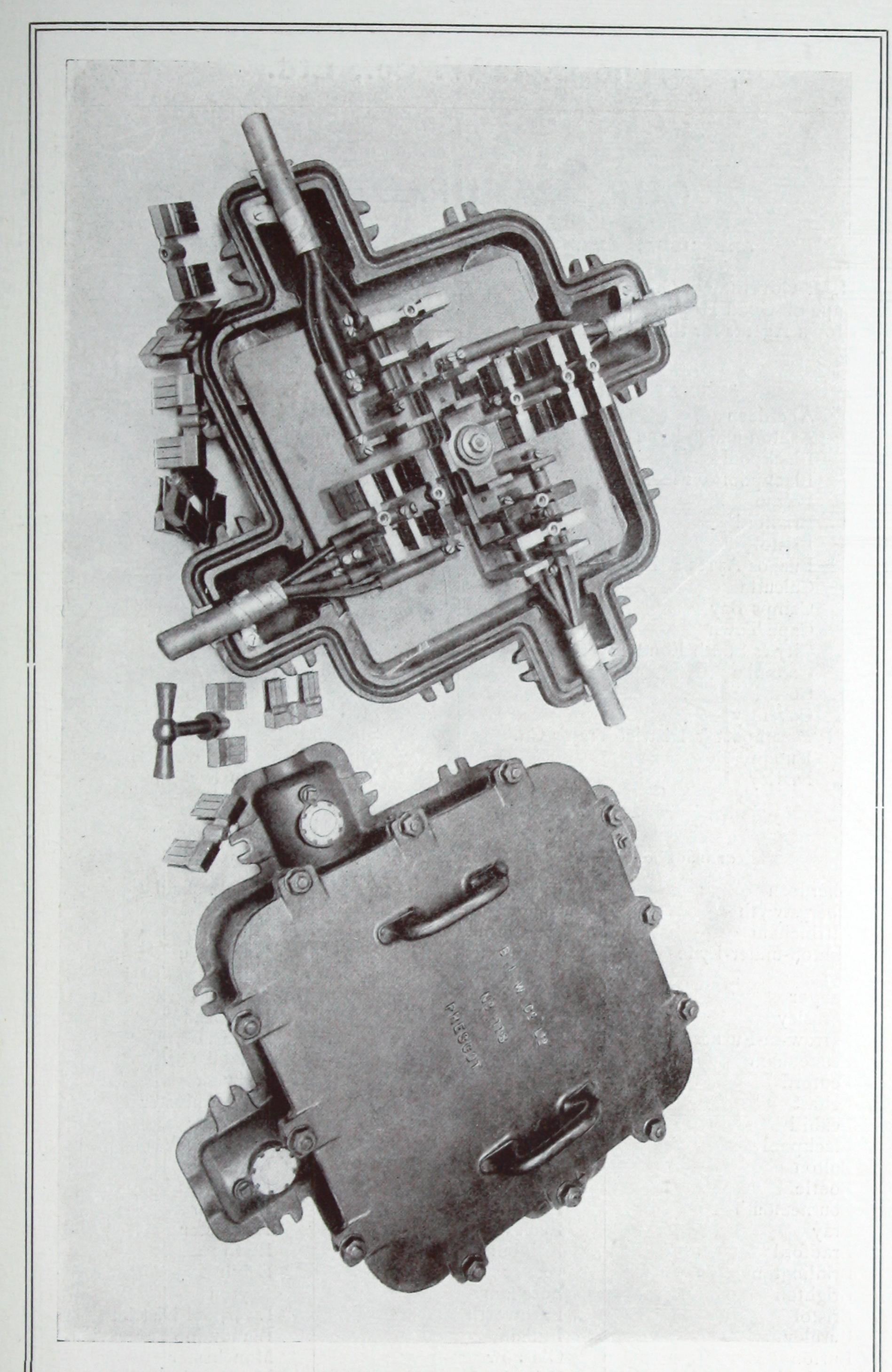
### TYPE OF SECTION PANEL

AS USED ON THE

NEWCASTLE-ON-TYNE CORPORATION TRAMWAYS.



STANDARD TYPE OF SECTION PILLAR.



FOUR-WAY FOUR-CORE BOX FOR TRI-PHASE WORKING WITH BALANCING WIRE.

#### OUR MANUFACTURES

ARE USED, AMONGST OTHERS, BY THE FOLLOWING:

H.M. Government G.P.O.
Cape of Good Hope Government
Crown Agents for the Colonies

Queensland Government Victorian Government London County Council

#### TRAMWAY WORKS.

Aberdeen Ashton-under-Lyne Blackpool Blackpool & Fleetwood Bolton Bradford Bristol Buenos Ayres & Belgrano Calcutta Camps Bay Cape Town City & South London Colombo Cork Coventry Devonport & District Trams Co. Dublin Dudley

Dundee Farnworth Glasgow Halifax Hill of Houth Isle of Thanet Kidderminster Manchester Newcastle Norwich Oldham, Ashton & Hyde Plymouth Portsmouth River Plate St. Helens Sheffield Stockport Wolverhampton

#### LIGHTING WORKS,

#### CORPORATIONS AND COMPANIES OPERATING IN THE FOLLOWING TOWNS

Aberdeen Aberystwyth Altrincham Ashton-under-Lyne Ayr Bangor Barnsley Barrow-in-Furness Beckenham Bedford Belfast Bexhill Blackpool Bolton Bootle Bournemouth Bray Bradford Bridlington Brighton Bristol Burnley Burton Cambridge Canterbury

Chagford Chesterfield Chelmsford Chiswick Coatbridge Colne Cork Coventry Darwen Derby Dewsbury Dover Dublin Dundee Eastbourne Eccles Edinburgh Exeter Fareham Farnworth Fulham Glasgow Grimsby Harwich

Cardiff

Huddersfield Hanley Hull Harrogate Halifax Hastings Hindhead Hove Kendal Keswick Kidderminster Killarney Kilmarnock Leeds Larne Leicester Lancaster Leith Leigh Leyton Liverpool District Llandudno Manchester Morecambe Middlesbrough

#### LIGHTING WORKS.-Continued.

Milford (Co. Carlow)

Northwich

Norwich

Newcastle

Northampton

Nelson

Northallerton

Oldham

Pemberton

Plymouth

Preston

Portsmouth

Prescot

Paisley

Rottingdean

Rathmines & Rathgar

Saltburn

Scarborough

Southport

Sheffield

South Shields

St. Helens

Salford

Sunderland

St Annes-on-Sea

Tunbridge Wells

Taunton

Torquay

Wakefield

Worcester

Wallasey

Hackney

Hampstead

Islington

Southwark

Poplar

Blackheath & Greenwich Co.

Brompton & Kensington Co. Charing Cross & Strand Co.

Chelsea Co.

Chatham, Rochester & District Co.

City of London Co.

County of London & Brush Co.

Crystal Palace & District Co.

House to House Co.

Kensington & Knightsbridge Co.

Gt. Eastern Rly.

Gt. Northern Rly.

Lancashire & Yorkshire Kly.

London and North-Western Rly.

Midland Rly.

Bristol Docks

Armstrong, Sir W. G.

Whitworth & Co,, Ltd.

Brown, J. & C., Ltd. (Clydebank)

Altham & Gt. Harwood Collieries

Carlton Main Collieries

Whitehaven

Windermere

Wigan

West Ham

Wolverhampton

Warrington

West Bromwich

Worksop

Yarmouth

Adelaide

Bendigo

Ballarat

Brisbane

Barcelona

Ruenos Ayres

Cape Town

Candy

Colombo

Coolgardie

Durban

Freemantle

Geelong

Lagos

Malaga

Malta

Madrid

Melbourne

Sydney

Yokohama

St. Giles', Holborn

St. Pancras

Shoreditch

Stepney

London Electric Supply Co.

Metropolitan Co.

Midland Electric Power Co.

National Electric Wiring Co.

New Brighton Tower Grounds

Notting Hill E. L. Co.

South London E. S. Co. S. James' & Pall Mall Co.

Sydenham Co.

Westminster Co.

North Eastern Rly.

Gt. North Scotland Rly.

North Staffordshire Rly.

Victorian Rlys.

Tyne Docks

Palmer's Shipbuilding & Iron Co., Ltd. Thames Iron Works & Shipbuilding

Co., Ltd.

Hedley's Collieries

Stanton Iron Works & Collieries

# The British Insulated Wire Co.,

LIMITED.



BRACKET-ARM CONSTRUCTION AT ST. HELENS.

PRESCOT, LANCS.,

ENGLAND.

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